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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **IL-14 VACCINE FOR THE TREATMENT OF ASTHMA AND ATOPIC DISORDERS**

(57) Abstract: The present invention relates to IL-13 vaccines and their use in the treatment of diseases that are treatable with neutralisation of IL-13, such as COPD, asthma and atopic disorders such as hayfever, contact allergies and atopic dermatitis. The vaccines of the present invention comprise an IL-13 immunogen and an adjuvant composition which is a combination of a saponin and a non-toxic derivative of LPS. The invention further relates to pharmaceutical compositions comprising such immunogens and their use in medicine and to methods for their production.

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INTERNATIONAL SEARCH REPORT

ational Application No

PCT/GB 03/03729

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K39/00 A61K39/39 A61P11/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, BIOSIS, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 00/65058 A (M & E BIOTECH) 2 November 2000 (2000-11-02) cited in the application the whole document	1-19
Y	WO 01/05820 A (M & E BIOTECH) 25 January 2001 (2001-01-25) the whole document	1-19
Y	WO 01/34645 A (THE GOVERNMENT OF THE UNITED STATES OF AMERICA) 17 May 2001 (2001-05-17) the whole document	1-19
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
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- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

6 May 2004

Date of mailing of the international search report

17/05/2004

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 03/03729

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	MOORE A ET AL: "The adjuvant combination monophosphoryl lipid A and QS21 switches T cell responses induced with a soluble recombinant HIV protein from Th2 to Th1." VACCINE. 4 JUN 1999, vol. 17, no. 20-21, 4 June 1999 (1999-06-04), pages 2517-2527, XP004169661 ISSN: 0264-410X the whole document	1-19
Y	SILLA S ET AL: "Enhancement by IL-12 of the cytolytic T lymphocyte (CTL) response of mice immunized with tumor-specific peptides in an adjuvant containing QS21 and MPL." EUROPEAN CYTOKINE NETWORK. JUN 1999, vol. 10, no. 2, June 1999 (1999-06), pages 181-190, XP008001564 ISSN: 1148-5493 the whole document	1-19
Y	WO 01/62287 A (ADVANCED BIOTHERAPY) 30 August 2001 (2001-08-30) the whole document	1-19
P,X	WO 02/070711 A (GLAXO GROUP LIMITED) 12 September 2002 (2002-09-12) the whole document	1-19

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB 03/03729

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Although claim 19 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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